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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,998

12/02/2003

Koichi Kudo

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3167

22850 7590 04/17/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
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EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT

PAPER NUMBER

2625

NOTIFICATION DATE

DELIVERY MODE

04/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/724,998	<b>Applicant(s)</b> KUDO ET AL.	
	<b>Examiner</b> Houshang Safaipoor	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-33, 35, 37 and 39 is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-13, 34, 36 and 38 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

The recitation regarding “optical encoder” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 11, 12, 13, 34, 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto Eiji (JP 07-306058) (Detailed machine translation available on JP site).

Regarding claim 1, Eiji discloses:

a light emitting unit (21) that emits parallel light onto a plurality of marks that are arranged on an object (scales 21 and 23, drawing 2) at a predetermined interval in a moving direction of the object (paragraphs [0005]); and

a light receiving unit (24) that receives light modulated by the marks (paragraph [0004-0007]).

Regarding claim 2, Eiji discloses the optical encoder according to claim 1, wherein the light emitting unit includes a light source (21); and a collimating lens (2) that collimates light emitted from the light source to generate the parallel light (drawing 2).

Regarding claim 3, Eiji discloses that the light receiving unit receives light passing through the marks as the light modulated by the marks (paragraph [0004-0007]).

Regarding claim 4, Eiji discloses that the light receiving unit receives light reflected from the marks as the light modulated by the marks (paragraph [0004-0007]).

Regarding claim 11, Eiji discloses that the light emitting unit emits light in a direction perpendicular to the moving direction of the object (drawing 2).

Regarding claim 12, Eiji discloses that the light emitting unit emits light in a direction normal to a surface of the object on which the marks are arranged (drawing 2).

Regarding claim 13, Eiji discloses that a splitter that transmits the light emitted from the light emitting unit to the marks, and that guides light reflected from the marks to the light receiving unit [0003].

Regarding claims 34, 36 and 38, Eiji discloses a driver for a motor to move an object, comprising: an optical encoder that includes a light emitting unit that emits parallel light onto a plurality of marks that are arranged on the object at a predetermined interval in a moving direction of the object; and a light receiving unit that receives light modulated by the marks; and a motor controller that controls the motor based on a signal output from the light receiving unit (please refer to discussion under claim 1 and paragraphs [0004-0006]).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eiji and further in view of Sugaya (US 2003/0044211).

Regarding claim 5, Eiji does not explicitly disclose that the object is a belt supported by a plurality of supporting members, and the belt is moved by a motor. Sugaya discloses a scale, pattern of which is printed on the belt [0098].

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eiji and further in view of Lino (US 2003/0052287).

Regarding claim 6, Eiji does not explicitly disclose that the object is a rotor that is turned by a motor. Lino discloses such a feature [0007].

***Allowable Subject Matter***

6. Claims 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 14-33, 35, 37 and 39 are allowed.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Houshang Safaipoor/  
Primary Examiner, Art Unit 2625  
April 11, 2008